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CAVERNS OF COPAN,

HONDURAS.

REPORT ON EXPLORATIONS BY THE MUSEUM, 1896–97.

BY

GEORGE BYRON GORDON.

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CAVERNS OF COPAN.

In the mountains surrounding the valley in which the ruins of Copan are situated the rocks are of a twofold character. The lower rocks of the region, as I believe is the case throughout Central America, are limestone; overlying these are the beds of trachyte which furnished the building stone for the builders of Copan, and from which the ancient quarrymen hewed the massive blocks on which the sculptor carved those intricate designs which adorn the ruined temples and columns and altars to-day.

At a distance of about four miles from the principal group of ruins, towards the northwest, in a limestone ridge that rises abruptly from the rocky bed of a mountain stream called the Sesesmil, are a number of caverns, which I discovered and explored during the twelve days from April 1 to April 13, 1896, and revisited in June, 1897, to complete their examination. Along the course of the Sesesmil from its confluence with the Copan to a plain called Llano Grande, the outcrops are mostly of trachyte, except where the stream intersects the high ridge called Cerro Maria, the site of the caverns which are to be described.

The gorge occupied by the river is narrow, and the sides steep. The western side rises from the bed of the stream in a steep but even slope covered with a thick growth of medium-sized trees and by shrubbery, and overhung by rugged cliffs that rise in perpendicular masses for another five hundred feet, making a total height of a thousand feet from the stream to the top of the cliffs. The lower five hundred feet can be climbed by holding on to the trees and shrubs. The cliffs in places may be scaled for some distance by using a great deal of exertion and care, but to reach any of the caves except those at the base of the cliffs is extremely dangerous and difficult, if not impossible, for any one not practised in such exercise. The caverns which open into the face of these cliffs are therefore very difficult of approach.

The first of these which I entered is situated at a height of more than two hundred feet. After scaling the rocks, which afford few resting-places, the entrance of a passage is reached which runs upwards at an angle of 45° and parallel to the face of the cliff. The passage thus resembles a stairway closed on the outside by a wall of rock. At the top it expands into

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THE COPAN VALLEY

1 MILE

MODERN VILLAGE SITE

STELAE 3 AND 6

ALTARS 1 AND 2

STELA 7

MAIN STRUCTURE

PIEDRA PINTADA STELA 11

VILLAGE OF PINO SAPO

ALBONETE MOUNTAIN

ANCIENT AMERICA

STELA WITHIN WALLED ENCLOSURE

PIEDRA PINTADA STELA 10

CAVE

LIMESTONE CLIFFS WITH CAVES

LLANO GRANDE

PLAIN WITH REMAINS OF STONE STRUCTURES

CACHAPA O R SANTA RITA

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a small chamber with a landing. At a height of about four feet above the floor is a natural opening like a window, whose dimensions are such that a medium-sized man might pass through with comfort, but to a very large man it would be inaccessible. It opens right on the face of the cliff, and overlooks a sheer descent of several hundred feet and the gorge of the river far below. Any one thrown from it would be mangled among the rocks at the base of the cliffs. On the outside, about three feet below the window, is a ledge, about two and a half feet in width, which ends abruptly to the right, and to the left leads around a turn in the face of the cliff and forms a sort of roadway to the entrance of the cave, which can be approached in no other way. This entrance is about six feet wide and ten feet high, expanding towards the interior, and forming a lofty vaulted chamber with projecting masses of dark rock oddly and fantastically shaped by the sport of nature. Just inside the entrance a large stalactite with its lower part broken away is carved into a rude likeness of a human head, with curved lines for the eyebrows and nose and round holes for eyes, mouth, and ears. This is the only bit of sculpture observed in any of the caves. There are no other stalactites in this cave, and there is no moisture. The deposit on the floor, which appears to be quite deep, consists of a fine dry light-colored earth. It did not have the appearance of having been trodden much, and the surface, though soft, was even and without marks. Fragments of pottery stuck through the surface. This cavern may be one hundred feet in length by fifty feet in width; no galleries were observed leading from it, and its only approach is that described. Besides the pottery, there were charcoal and pitch-pine firebrands which might be of almost any age; the conditions being as they are in the cave, this wood might endure for a great length of time.

The second cave is some seventy or eighty rods south of this, a little higher up and equally difficult to reach. It is smaller than the first, but otherwise the two are similar. A quantity of reeds, such as the natives use to-day for making partitions in their houses, and beds to sleep on, and for many other purposes, were lying on the floor. They were cut to a length of five or six feet, and had the appearance of great age.

The third cave, situated where a curve in the cliffs follows the slope upward, is farther north than either of those already described, and at a greater elevation. The entrance is almost hidden by a clump of bushes growing on a projecting ledge. This is the most interesting of the caverns discovered, and was explored to a greater extent than any of the others. It consists of three chambers, of which the first or outer is the largest. Just inside the entrance was an old abandoned eagle's nest surrounded by heaps of bones of small animals, such as squirrels, small hog, tepisquintli, young deer, and many other species. Overhanging masses of rock protect the entrance from the falling rains, and the interior is perfectly dry. The first

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chamber is approximately circular in shape, and measures one hundred and fifty feet in diameter, rising to a lofty vault in the centre. The walls of dark gray limestone, without stalactites, present a gloomy appearance. Upon the floor the deposit is the same as that found in the other caves. When discovered, the surface was very even, without tracks or other disturbance, and offered no very firm resistance to the footstep, which sank half an inch in the dry powdery deposit. Numerous small fragments of pottery appeared sticking through, and in places were charcoal and dried-up hard-pine fire-brands, the remains of fires over which had accumulated an earthy dust to a depth of about two inches, representing the depth accumulated since the latest occupation. This surface dust is of the same character as the whole deposit on the bottom of the cavern, the depth of which was finally determined to be at one place fifteen feet. I believe this deposit to be formed by the dry decomposition of the rocks forming the walls.

The walls slope downward on all sides like a dome, meeting the floor at an angle and forming recesses all around. In one of these recesses

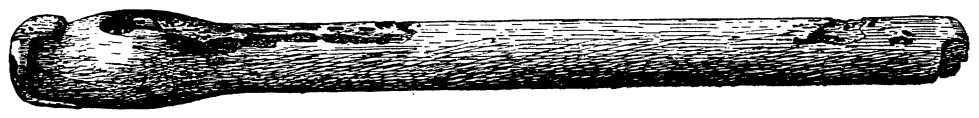

FIG. 1.—WOODEN AXE-HANDLE? FROM CAVE 3. $\frac{1}{4}$.

nearly opposite the entrance I found a wooden object, shown in Fig. 1. It was half buried in the dust, and had every appearance of having lain there a very long time. The state of the wood is not out of keeping with this supposition, because in the absence of moisture there was so little to aid in its decay that it might last for many centuries. A careful search was made in its vicinity for the tool to which it belonged, but no trace of it appeared, and no implement of any kind was found in any of the caverns.

An excavation twenty feet long and three feet wide was made in this part of the chamber. After the surface layer of dust came a thin crust, which must have been caused by the presence of moisture at some period. It was only a few inches in thickness, and beneath it the material was very dry, soft, and loose, so that the men were able to remove it easily without the use of picks. In the surface crust and beneath it to a depth of three feet were found ashes, charcoal, and potsherds. The latter are not numerous, and are of a coarse quality. At a depth of three feet the potsherds and ashes and all signs of occupation disappeared; the material excavated grew lighter in color, softer, and looser. In appearance and behavior it resembled quicklime, of which it largely consisted. Throughout the whole excavation the material removed rose in the air in thick clouds of suffocating dust.

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The excavation was carried to a depth of fifteen feet, where the bottom of the cavern was reached in part of the excavation. On the rock floor were absolutely no traces of occupation.

Close under the sloping wall a skeleton was found ready to crumble. The skull was about six inches from the surface, and the earth rested so lightly upon it that it was still entire when found, but crumbled on being touched. By the skull was a small narrow-necked jar (Plate I., a). The body had been placed in a sitting posture, with knees at chin. In the left-hand side of the chamber, looking from the entrance, a small opening on the level of the floor leads downwards at an angle of 15° under the wall. It is just large enough to admit the body of a man lying flat, and is the end of a passage about forty feet long that leads to a small chamber which I have called No. 2. Though smaller — being only about fifty feet in diameter — this chamber was like the first in appearance, except that it contained more ashes. The floor was level and even, but the way it yielded to the footstep did not suggest any very extensive or recent occupation. As in the first chamber, fragments of pottery protruded from the surface, and one rough vessel rested on the floor near the centre. Near it was a slight rounded elevation which proved to be the remains of a fire, a heap of bones and ashes covered with dust. Over a part of these remains a stalagmite had begun to form, the only evidence of moisture having entered this cave. It was about six inches thick in the centre, thinning away at the edges; many of the charred bones were incorporated in its under part, showing that it had formed and had not been placed in that position. The rough jar which stood close by had the marks of fire upon it, and was probably a cooking-vessel. An excavation about eight feet in diameter and six feet deep was made in the centre of this chamber. Over everything, including the stalagmite, was a layer of dust; on the stalagmite it was at least one inch deep. As in the first chamber, fragments of pottery were found in the first three feet of depth, but after that none were found. During the work the whole chamber became filled with clouds of choking dust. From this chamber another passage similar to the first leads in the same direction to a third chamber, a long narrow gallery which looks like a rift in the rock running to a wedge at either end and at the top. It is eighty feet long and twenty feet wide at the widest part. The walls are black, the air close and foul, and altogether it is as repulsive a hole as could be found in the face of nature. The floor seemed more uneven than in either of the other chambers, and gave way still more to the pressure of the feet, and with a crushing sound. I soon discovered that I was walking upon the dust and crumbling bones of decomposed human bodies, mingled with ashes and lime. A mass of charred and calcined bones occupied the entire floor to a depth of about two feet. Among these were a few larger pieces which did not show traces of fire, and around the walls were found a number of small jars (Plate I., *b*, *c*, d, e, f). An excavation

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was made across the centre of this chamber to a depth of three feet. In the last foot excavated the bones disappeared. It is hard to give a conception of what a disagreeable place this was to work in. Outside the mountain it was intensely hot, and inside the temperature seemed scarcely lower; add to this the close, stifling condition of the atmosphere, that made breathing difficult, and then the thick clouds of unsavory dust that filled the air at every disturbance of the decayed mass on the floor with its associated lime and ashes. The chamber seems to have been used for depositing the partly cremated remains of human bodies. I do not think that fires were built in this chamber itself, for there were no large fragments of charred wood such as would have marked the remains of a fire.

Cave No. 4 is close to No. 3, in an angle of the cliff. The first chamber is a dome-shaped cavity about one hundred feet across and very lofty in the centre. The floor had the usual appearance. At the side farthest from the entrance a rocky incline led upwards to an opening like a narrow doorway, guarded by a projecting wall of rock; this gave access to a small circular chamber from whose top a shaft leads almost vertically upwards to a height of forty feet, where a narrow passage leads horizontally to one side. Following this a distance of fifty feet, a long, low chamber is reached, quite damp and inhabited by myriads of bats. No digging was done here, and I cannot tell whether or not there are any human remains.

An old Ladino who lives at Llano Grande told me one day that there was when he was a boy a very large cave at a certain point in the lower slope of this same mountain. From the entrance a flight of hewn steps led downward a long way into the interior, and there were sculptured figures on the wall on both sides. People were afraid to enter it, but on one occasion he and a companion entered with a torch. They arrived at the bottom of the stairway, and walked on a level floor. There were statues standing around, and there were sculptures on the walls. They thought there might be gold hidden away somewhere, but after they had gone a little way they saw something that looked like the devil, and becoming afraid they ran out. So far as he knew, no one else had ever entered it, and some time afterward the entrance became closed up. He pretended to be able to point out the exact spot where it had been, and I had the bush cut over a considerable space and excavated, but found neither a cavern nor any indication of one. Either the old man was lying or he was mistaken about the location of his cave. They are fond of the marvellous, and like to make others gape with wonder at their experiences and tales. It is not at all unlikely, however, that my informant had known and entered some cave that afterwards became lost, but his imagination aided his memory, and his love for the marvellous made his story easy. There was nothing artificial about the walls of the caves I examined, and with the single exception mentioned there were no sculptures of any kind.

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In the eastern part of the same limestone formation is a cave of a different character from those described. In the upper slopes of the mountain, whose top is broad and flat, is an opening in the form of a well about ten feet in diameter and fifty feet deep. From the bottom of this well a shaft leads to a small chamber with a smooth floor of calcite with stalagmites standing like columns around the sides. The whole chamber is lined with white stalactites and delicate incrustations of calcite. At its extreme end the walls of this chamber converge toward the mouth of a vertical shaft a little larger than a man's body. On my second visit I was lowered through this opening by means of a stout rope brought for the purpose. At a depth of a few feet the walls of the shaft receded suddenly, leading to a dome-shaped cavern, very damp. From the enormous stalactites that depend from above, the water is constantly dripping, which keeps the rapidly forming calcareous deposit on the floor quite moist. There was no other opening but the one that I came through; and the only trace of human remains I found were the bones of a skeleton almost entirely embedded in the rock and much decomposed. This skeleton lay several yards from the point directly under the opening at the top, and was extended at full length. The depth of the cave was more than one hundred feet measured by the length of rope paid out, and it is therefore certain that a person falling through the opening would have been mangled, and his remains would have stayed where they had fallen, directly below the opening.

The pottery that was found in these caves is of a character entirely different from that found at Copan. Not a single piece can be said to bear any resemblance to Copan pottery, nor does it resemble the pottery of any other locality with which I am familiar. The facts already obtained do not lead us beyond the positive proof that in this region there once lived a people who made pottery of a different character from that pertaining to the people with whose remains in the same region we were already familiar, and that this people either dwelt in caves or resorted to them occasionally, from motives of practice, custom, or protection.

The evident strength and security of the position suggest their having been selected for defence; and in keeping with this are the natural conditions determining the mode of life, for races have only taken up their abode in caves where the inhospitable climate drove them to seek shelter there from storm and cold. In this region all the natural conditions are such as to induce an open-air mode of life. Then it is to be remembered that the caves now known could not accommodate very many persons, a few families at most, although it is not unlikely that there are other caves.

Again, the facts obtained in the caves do not seem to indicate a constant occupation for an extended period of time; the deposit is not compact and hard, even on top, as such an occupation by a number of persons would tend to make it. The absence of moisture would of course help to prevent

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it from being compressed and hardened; and the water brought to the caves for use would have to be taken from the stream and raised with difficulty to a height of several hundred feet; consequently it would be used carefully and with little waste, and hence there would not be so much dampness attending the domestic life of the people as there usually is under ordinary conditions.

The presence of the mortuary chamber with so many bones, as well as the burial in the outer chamber of Cave 3, would seem to indicate a constant occupation or even seclusion. But we know, from the writings of the early Spanish priests, that among the Maya tribes of Central America there was an extensive cave cult, devoted to the worship of a cave god, and the rites and ceremonies were performed in caverns. They are probably identical with the so-called Nagualists whose holy places and sacred objects, says Brinton,* were in caves and deep rock-recesses and not in artificial structures. Moreover, according to the same author, they disposed of the bodies of the priests of their cult in the same caverns where they held their sacred mysteries.†

As to the age of these relics and the period to which they belong, there is little to give us any information, or to determine the relative place in history of the people they represent. Whether they preceded those who built Copan, came after or were contemporaneous with them, we have no data whatever for determining. The condition of the bones and of the wooden object, though not indicating of necessity any very great antiquity, proves they are of no very recent date, while the accumulation of a deposit from the decomposition of the rocks without the aid of moisture or vegetation, the formation of a stalagmite upon a bed of ashes and the subsequent deposition of a layer of dust argue a considerable antiquity. If we are to suppose these people were distinct from the builders of Copan, then where are they to be traced? where else are their remains to be found? May it not be (to hazard a guess) that these cave relics belong, after all, to the same period as Copan itself and are remains of the Copan people, or the devotees of some old cult among them whose temples were the caves and whose vessels used in the ritual were of a design and character exclusively their own.

As for the natives now living in the country, they neither knew of the existence of the caves nor exhibited any interest when they were made known to them, except in the fear that they displayed when asked to enter, which can be accounted for as the natural attitude of an ignorant and super-

* Daniel G. Brinton, Nagualism. Phila. 1894. Sec. 24. † Ibid.

The same author states (Myths of the New World, New York, 1868), on the authority of Gumilla, that the Caribs preserved the bones of their dead hung upon the walls and doorways of their dwellings, like family armor and insignia; and the learned doctor adds, with an unconscious humor akin to that of the enthusiastic preacher who prayed the Lord to remember the people of uninhabited lands, that "when the quantity of these heirlooms became burdensome, they were removed to some inaccessible cavern and stowed away with reverential care" (page 256).

The Caribs, however, were a coast people, and are not known to have penetrated into the interior.

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